

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 1 and 2 (2 – 15 January 2012)

Initially this bulletin will be released on a bi-weekly basis. However once flu activity begins to increase it will be produced on a weekly basis.

As the season develops additional charts and tables will be added where necessary.

Summary

- GP consultation rates for combined flu/FLI increased from 20.8 in week 52 to 25.4/100,000 population in week 2. Rates in weeks 1 and 2 are substantially lower than the same weeks last year and remain well below the Northern Ireland threshold (70/100,000 population).
- Out of hours flu/FLI call rates decreased from 11.0 per 100,000 population in week 52 (reflecting the holiday period) to 3.5 per 100,000 in week 2.
- There were two influenza A(H3) detections in weeks 1 and 2, 2012.
- There were 55 RSV detections in weeks 1 and 2, 2012.
- There have been no reports of any patients admitted to critical care units with confirmed influenza for the 2011/2012 influenza season to date.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.

Introduction

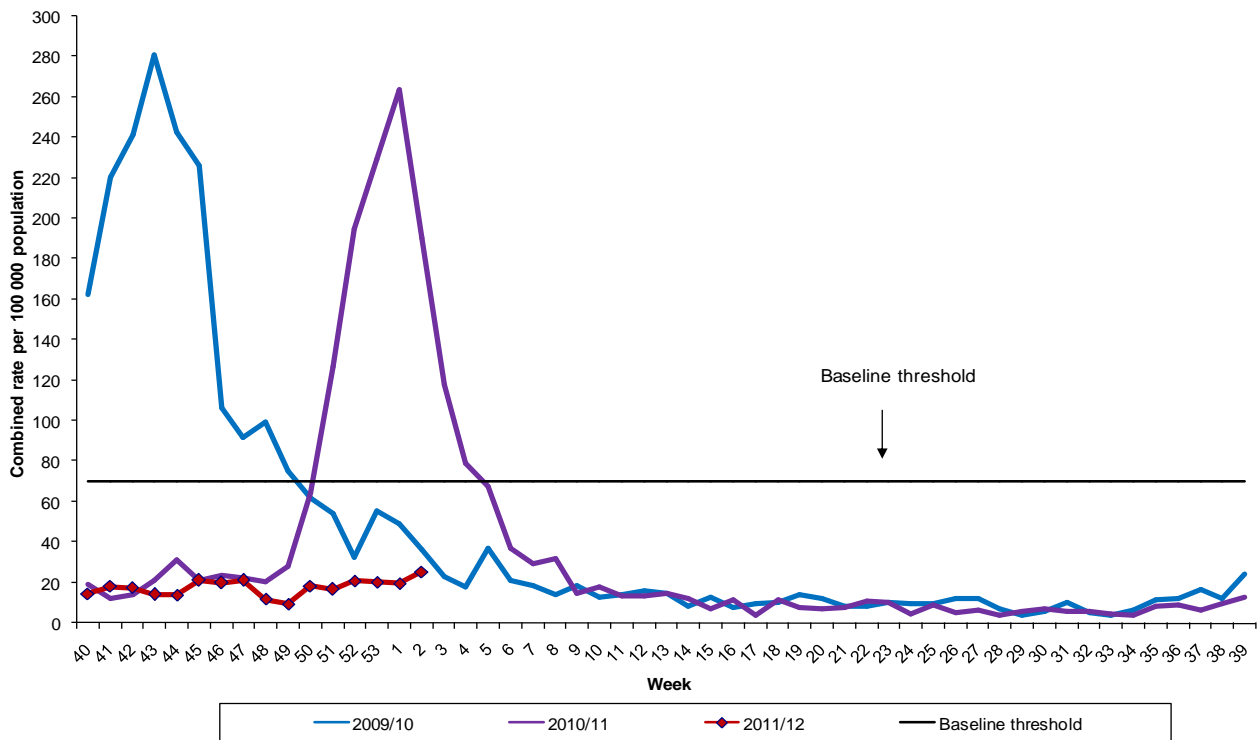
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for this winter will be surveillance of critical care patients in hospitals with confirmed influenza.

Additional surveillance systems are:

- GP sentinel surveillance representing 11.7% of Northern Ireland population;
- GP out of hours surveillance system;
- Virological reports from the Regional Virus Laboratory (RVL);
- Mortality data from Northern Ireland Statistics and Research Agency (NISRA).

Sentinel GP consultation data

Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2009/10 – 2011/12



Note: 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

Figure 2. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology flu detections from week 40 2010

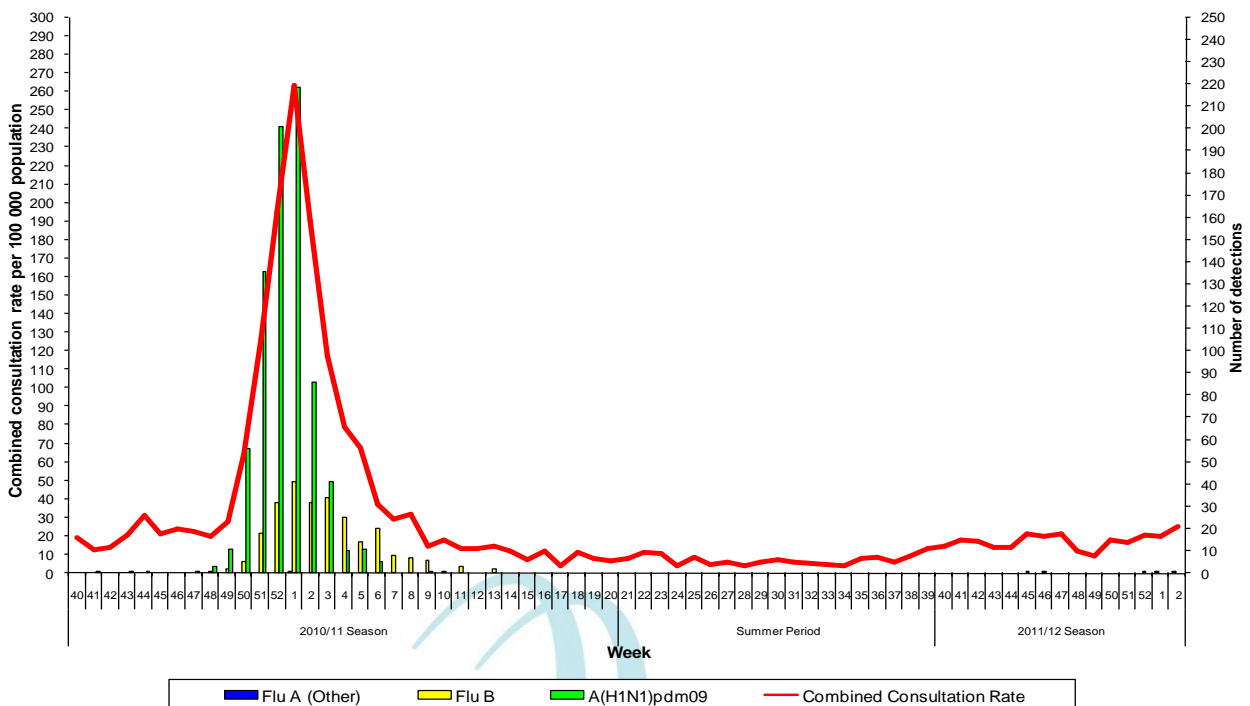


Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2010

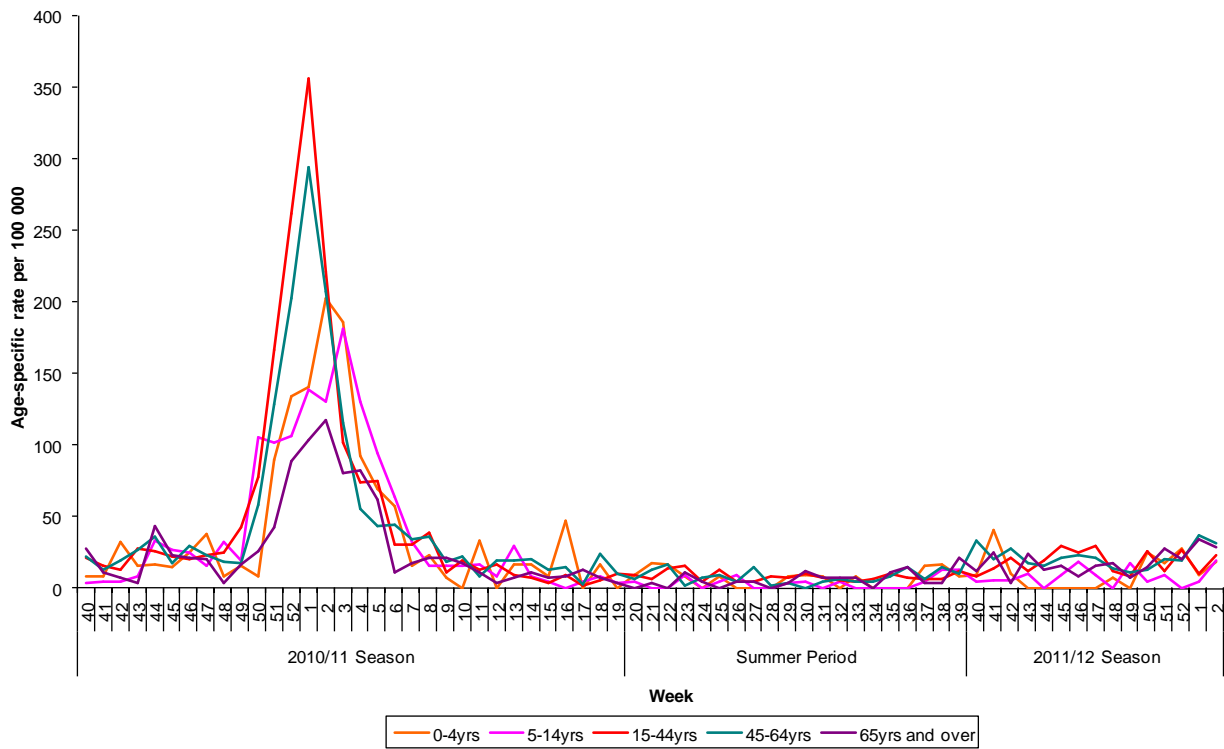
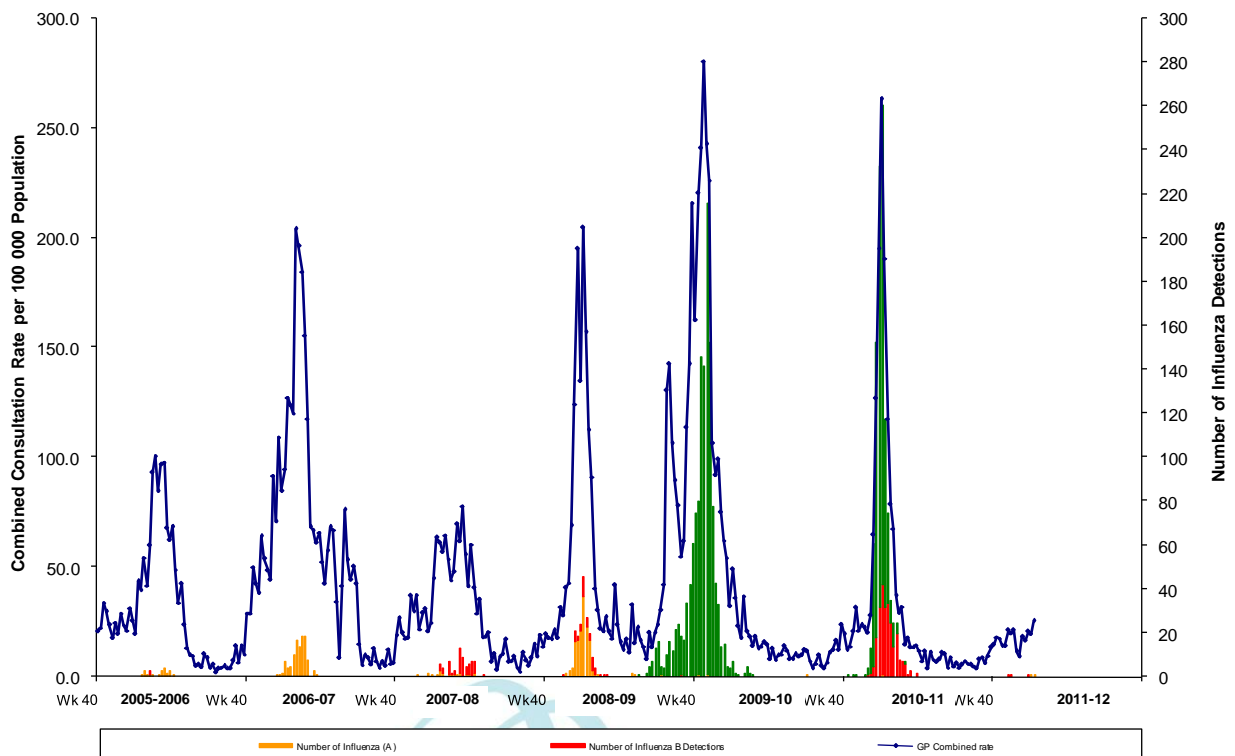


Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005-06 – present.



Comment

The GP combined consultation rate has increased from 20.8 per 100,000 population in week 52 to 25.4 per 100,000 population in week 2 (22% increase). Rates for week 1 and 2 are substantially lower than the same weeks last year (263.5 and 190.6 per 100,000 population, respectively) and remain well below the Northern Ireland threshold of 70 per 100,000 population (Figure 1).

Age specific rates remain low with small increases in some age groups in the two week period. The highest age specific rates for weeks 1 and 2 were in the 45–64 year age group. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figure 3).

There has been a delayed start to the circulation of influenza virus this winter. This is not entirely unusual, for example influenza activity peaked during the 2005/06 and 2006/07 winters in February (Figure 4).

Out of hours centres call data

Figure 5. Out of hours total call rate (all diagnoses) and call rate for flu and flu-like illness from week 40 2010

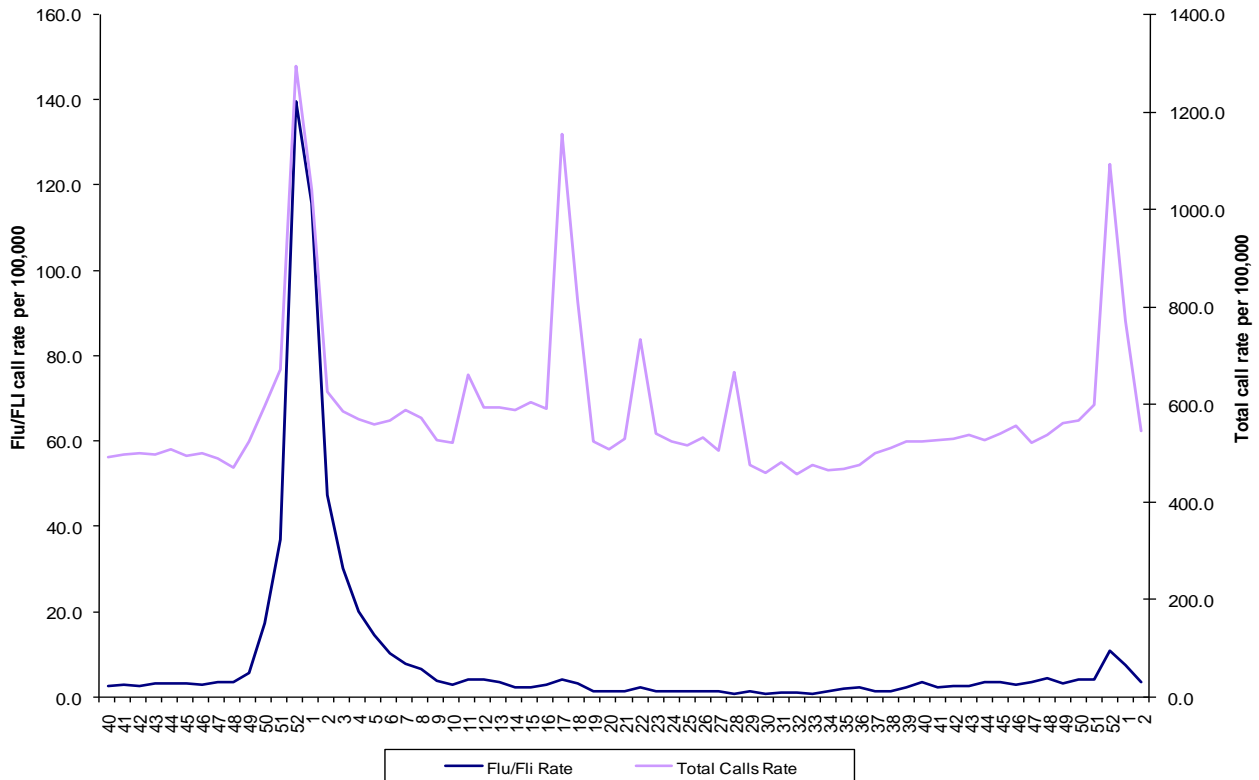
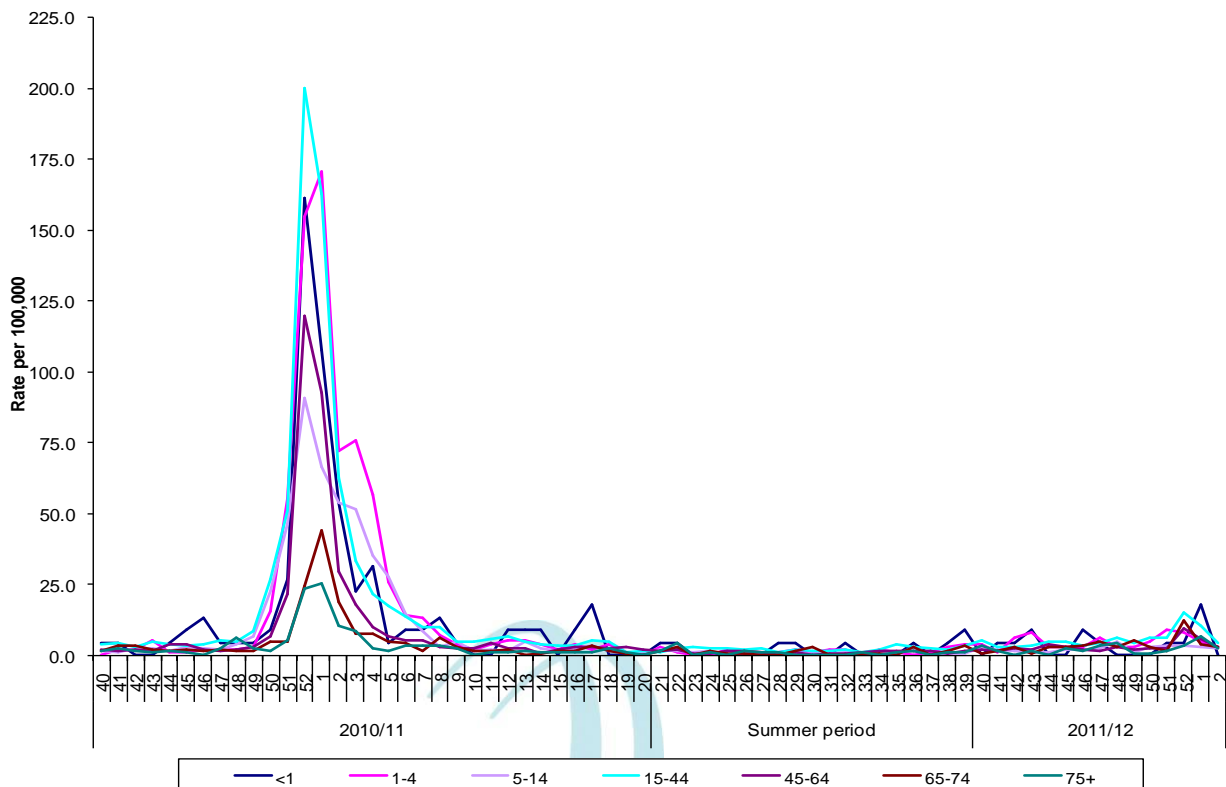


Figure 6. Out of hours call rates of flu and flu-like illness by age-group from week 40 2010



Comment

Out of hours call rates for flu/FLI decreased from 11.0 per 100,000 population in week 52 to 3.5 per 100,000 population in week 2 (Figure 5). This decrease is expected as week 52 reflected a period when GP surgeries were closed. Rates are much lower than the same weeks last year at 115.8 and 47.4 per 100,000 population, respectively. Age specific flu/FLI rates continue to remain low with overall decreases in all age groups compared to week 52. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figure 6).

Virology data

Table 1. Virus activity in Northern Ireland Weeks 1 and 2 2012							
Source	Specimens tested	A(H1N1) pdm09	AH3	Influenza B	RSV	Total influenza positive	% Influenza positive
Sentinel	6	0	0	0	0	0	0%
Non-sentinel	188	0	2	0	55	2	1%
Total	194	0	2	0	55	2	1%

Table 2. Cumulative total Week 40 2011 - Week 2 2012					
Age	(H1N1) 2009	AH3	Flu B	Total Influenza	RSV
0-4	0	0	1	1	120
5-14	0	0	0	0	5
15-64	0	1	1	2	4
65+	0	1	1	2	5
Unknown	0	0	0	0	0
All ages	0	2	3	5	134

Table 3. Cumulative Total Week 40 2011 - Week 2 2012										
Age	Sentinel					Non-sentinel				
	(H1N1) 2009	A(H3)	Flu B	Total influenza	RSV	(H1N1) 2009	(AH3)	Flu B	Total influenza	RSV
0-4	0	0	0	0	0	0	0	1	1	120
5-14	0	0	0	0	0	0	0	0	0	5
15-64	0	0	1	1	1	0	1	0	1	3
65+	0	0	0	0	0	0	1	1	2	5
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	0	0	1	1	1	0	2	2	4	133

Note

All virology data is provisional. The virology figures for previous weeks included in this bulletin are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

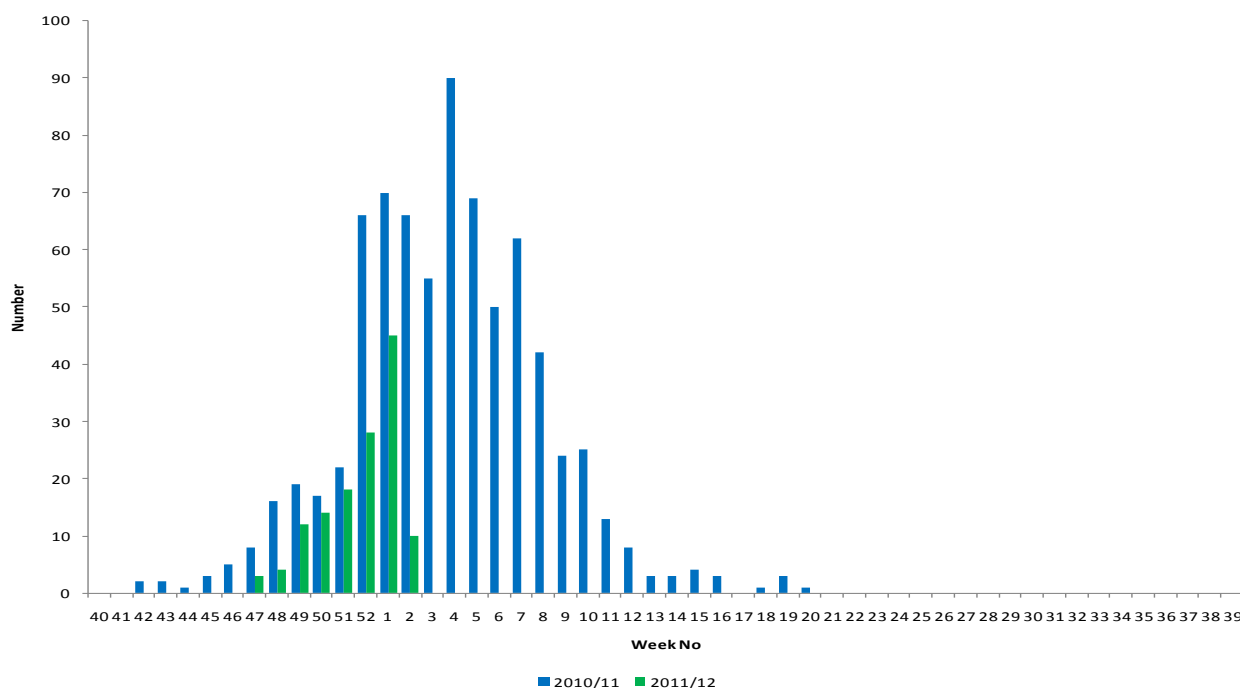
Sentinel and non-sentinel samples are tested for influenza and for RSV.

Comment

There were 194 specimens (6 sentinel and 188 non-sentinel) tested by the Regional Virus Laboratory during weeks 1 and 2, 2012. There were two influenza A(H3) positive detections, both adults, from non-sentinel sources during this period, bringing the total laboratory confirmed influenza detections this season to five (2 flu A(H3) and 3 flu B), (Tables 1 – 3).

Other respiratory viruses

Figure 7. Weekly cases of RSV viruses in Northern Ireland 2010/11 – 2011/12



Comment

RSV detections increased from 46 (updated) in weeks 51 and 52, to 55 detections in weeks 1 and 2 (20% increase), with 90% of all RSV detections so far this season in the 0-4 year age group (Figure 7).

Other respiratory viruses are circulating at low levels.

Hospital surveillance

There were no confirmed influenza patients or deaths in those with laboratory confirmed influenza in critical care (level 2 and 3) in Northern Ireland in weeks 1 and 2.

Additional information on confirmed influenza hospitalised patients will be available from the Health and Social Care Board (HSCB) once influenza starts to circulate.

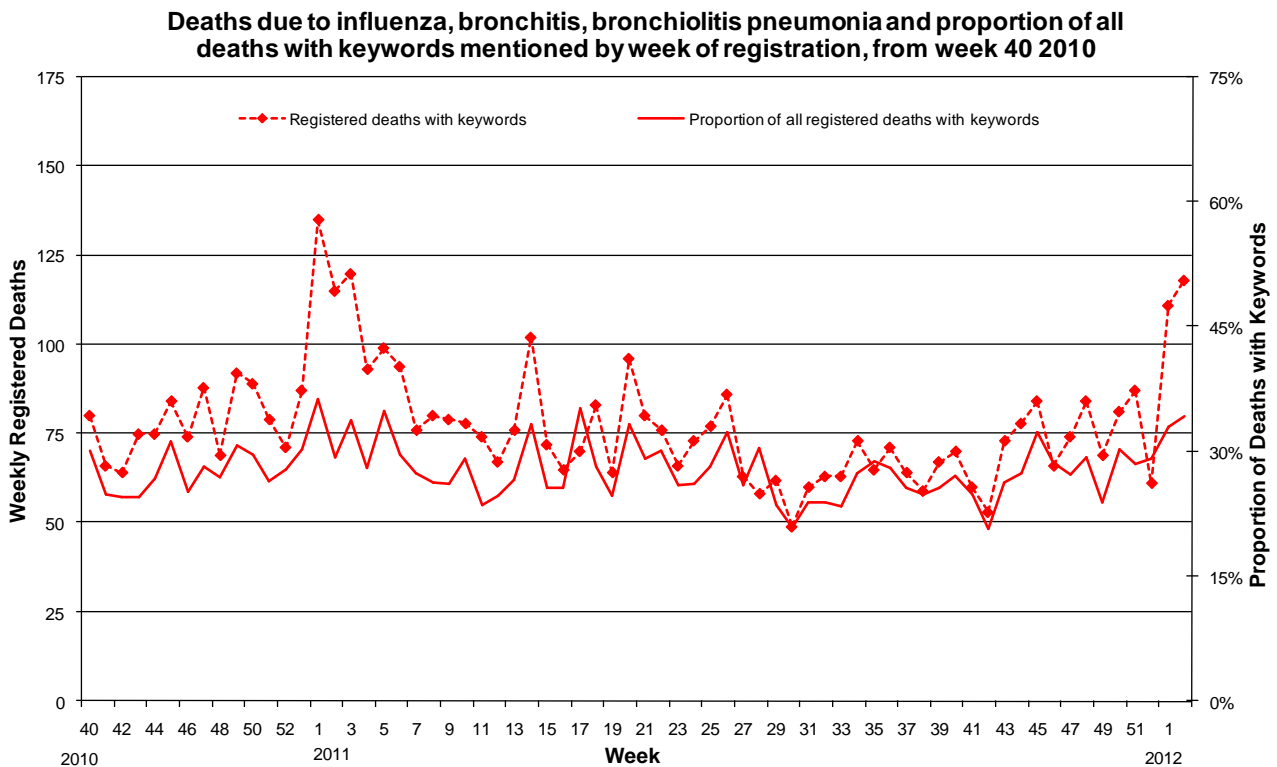
In the UK, since week 40 2011, there have been a total of 40 ICU influenza admissions across the USISS mandatory scheme with 13 (32.5%) resulting from influenza A(H1N1)pdm09, four (10.0%) from influenza A(H3N2), 20(50%) from A unknown subtype and three (7.5%) from influenza B.

Mortality data

Weekly mortality data is provided from Northern Ireland Statistics and Research Agency. The data relates to the number of deaths from selected respiratory infections (some of which may be attributable to influenza, and other respiratory infections or complications thereof) registered each week in Northern Ireland. This is not necessarily the same as the number of deaths occurring in that period. Searches of the medical certificates of the cause of death are performed using a number of keywords that could be associated with influenza (bronchiolitis, bronchitis, influenza and pneumonia). Death registrations containing these keywords are presented as a proportion of all registered deaths.

In addition this winter there will be reporting of deaths with confirmed influenza in patients in critical care (level 2 and level 3).

Figure 8. Weekly registered deaths



Comments

The proportion of deaths related to respiratory keywords for weeks 1 and 2 was 34% which was similar (33%) to the same weeks last year. In weeks 1 and 2 there were 681 registered deaths of which 229 related to these specific respiratory infections. Deaths registered in the first few weeks of January are often raised due to deaths being registered after the holiday period.

Vaccine uptake

As at the end of November 2011, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 72.6%, while the uptake in those aged under 65 in an at-risk group was 74.6% (provisional data). This compares with 66.5% uptake in the over 65 years, and 56.4% in the under 65 at-risk group for the same period last year.

Vaccination uptake to 31 December 2011 will be available in the next report.

International summary

Europe

During week 1/2012, low influenza activity was notified by all 26 of the 27 countries reporting (Malta reported medium activity) with five countries (Italy, Netherlands, Norway, Spain and Sweden) now indicating local or regional spread.

Of 625 sentinel specimens collected and tested during week 1/2012, 81 (13%) were positive for influenza viruses. Though less than the percentage reported in week 52 (which will have been affected by the Christmas/New Year holiday), it shows an upward progression since last month. Of 632 influenza A viruses sub-typed from sentinel and non-sentinel sources since week 40/2011, 588 (93%) were of the H3 subtype. No antiviral resistance has been detected as yet.

Since week 40/2011, 157 severe acute respiratory infection (SARI) cases have been reported by six countries. Fifty-five of them were confirmed influenza-positive cases and of those typed or sub-typed 14 were A(H1N1)pdm09, 17 were A(H3) and four were influenza B viruses.

Influenza transmission is showing some progression in Europe this season and is currently dominated by A(H3N2) viruses.

http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx

USA

During week 1 (January 1-7, 2012), influenza activity increased in the United States, but remains relatively low.

An overview of the US influenza can be viewed on <http://www.cdc.gov/flu/weekly/>

Canada

Influenza activity in Canada is similar to previous weeks with only certain regions reporting increased activity (ie western provinces) while activity remains low in the rest. Three

regions reported localised influenza activity and 18 regions reported sporadic influenza activity

http://www.phac-aspc.gc.ca/fluwatch/11-12/w01_12/index-eng.php

Worldwide (WHO)

Influenza activity in the temperate regions of the northern hemisphere remains below seasonal threshold levels, though notable increases in activity have been reported in some areas of Canada, Europe (Spain and Turkey), northern Africa (Tunisia and Algeria), and the middle East (Iran). The persistence of the increased activity over the last few weeks in these areas likely represents the start of the influenza transmission season.

- The viruses detected throughout the northern hemisphere temperate zone have been predominantly of the A(H3N2) subtype. Only very small numbers of influenza A(H1N1)pdm09 have been reported in recent weeks.
- Countries in the tropical zone reported low levels of influenza activity except for Costa Rica, which is primarily detecting influenza A(H3N2).
- Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels though Chile and Australia both report persistent transmission of A(H3N2) with smaller numbers of influenza type B in Australia.

http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

Further information

Further information on influenza is available at the following websites:

<http://www.fluawareni.info> Now on Facebook (Flu Aware NI)

<http://www.hpa.org.uk>

<http://www.publichealth.hscni.net>

<http://www.who.int>

<http://ecdc.europa.eu>

<http://euroflu.org>

Detailed influenza weekly reports can be found at the following websites:

England, Scotland and Wales:

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/EpidemiologicalData/>

Republic of Ireland:

<http://www.hpsc.ie/hpsc/A-Z/Respiratory/Influenza/SeasonalInfluenza/Surveillance/InfluenzaSurveillanceReports/20112012Season/>

For further information on the Enhanced Surveillance of Influenza in Northern Ireland scheme or to be added to the circulation list for this bulletin please contact:

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Acknowledgements

Public Health Agency wish to thank NISRA, the sentinel GPs, Out-of-Hours Centres, Regional Virus Laboratory and all who have contributed to the surveillance system and who have contributed towards this report.

This report was compiled by Cathriona Kearns, Paul Cabrey, and Dr. Brian Smyth.